THE AMERICAN ARCHITECT AND BUILDING NEWS.

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Two more accidents from unsafe building are to be added to those we noticed last week. One was in Perrysville, N.Y., where, during a children's entertainment, part of the floor of a hall gave way, and fell into the story below, letting down some fifty of the audience, and badly injuring four ladies. The other was the fall of the floor of the theatre in Sacramento, hardly less horrible in its results than the panic at the Chinese Theatre at San Francisco, though it was a kind of catastrophe which it is perfectly easy to prevent. Here too the floor of the auditorium, which was in the second story, gave way, and fell into the lower story, with an audience of a thousand people. The building was an old armory which had just been converted into what was called Moore's Opera House. The floor which had served for the uses of the upper story of an armory, probably for storage of the lighter munitions, and perhaps for the exercises of a squad or two of men, was suddenly called on to support the stage, galleries, boxes, and audience of a theatre which seated a thousand spectators, and without any precaution to strengthen or to test it. The accuracy of the accidental adjustment of its strength to its capacity, without allowing for any coefficient of safety, was surprising. It stood just long enough to allow its first audience on the opening night to crowd every part of it, and then every thing went down together. Seven persons are said to have been killed outright, and a hundred injured.

WHERE there is no accountability there is no security. So long as the proprietors of such buildings only suffer the injury to their property, the lives of audiences are hardly safe in their hands. Every commercial enterprise is a risk, in our country peculiarly so; and those who undertake it are readier to face the added risk of loss in a slight building, than the certainty of expense in a substantial one. If they were held responsible for the consequences to life and limb, they might choose differently; and this ought to be the rule. It is not a question, be it remembered, of punishment to be inflicted for a wrong done. The wrong would be impossible to weigh, and the penalty to adjust. It concerns simply the duty of society to protect its members against injury through neglect or incapacity of those to whom their lives are intrusted. Wherever the responsibility is found to rest, there security should be demanded. Extenuating circumstances should have no weight in the matter; that is, the moral question should not be considered at all, or should be considered apart, because it is indeterminate, and because the case is not one of punishment, but of defence. The accident lends peculiar emphasis to an architect's communication in another column, written before it occurred. Do any of the audience, he asks, "realize that they have placed their lives in our hands, and that we have accepted the trust?" We have argued before that it is useless to expect from merely "practical" men the knowledge necessary to deal with exceptional cases of construction; and it should be unlawful for such men to build an unsupported floor or roof for a place of public meeting, without consulting with an architect or engineer. But how insure that architect or engineer shall know his business, so long as everybody who chooses is allowed to call himself either? At present this is difficult to say; but the security is in holding the architect accountable (as he is held in some countries) unless he can prove that his orders were evaded in spite of due diligence on his part, or that he was positively overruled by his client, — in which cases the accountability should be transferred to the delinquent. The application of the penalty for manslaughter would make the honest bricklayer or carpenter shy of trying to floor a theatre, or truss a church roof by rule of thumb; or the proprietor, of interfering to defeat his architect's precautions; or the architect, of undertaking constructions which he did not understand, or of slighting his superintendence in important points. The remedy might prove severe; but it would not have to be applied often. It remains to be seen what steps the people of California will be moved to take to protect themselves. It is perhaps not likely that the San Franciscans will be stirred by the woes of John Chinaman to more than a momentary compassion; but the men of Sacramento may be aroused to a keen sense of the danger we all live in.

THE loan exhibition of paintings this fall at the National Academy of Design in New York has been unusually successful both in quality and profit. Probably no so good collection of the works of modern painters of our day has been got together in our country before. Visitors who have stopped in New York on their way to Philadelphia have been apt to say that it was much more interesting than the exhibition in the Art Galleries at the Centennial; and it is probably safe to say that its average standard was higher. The receipts of the loan exhibition, it is found, will be enough to pay off the debt of twenty-eight thousand dollars which the Academy owed, and leave it entirely unencumbered, with the income of the Suydam bequest of fifty thousand dollars at its command. The Academy was founded half a century ago, by a company of artists, among whom the late Prof. Morse (who had not then invented his telegraph) was active. Just fifty years ago, it held its first exhibition, which was conspicuous as the first exhibition of paintings by gas-light. It grew in importance till it became able to raise money for its building on Fourth Avenue in New York, which it has occupied now for a dozen years. This building, the work of Mr. P. B. Wight, was one of the landmarks of the newer architecture in New York. At present the property of the Academy amounts to nearly four hundred thousand dollars: its schools and its exhibitions have prospered. A writer in a late number of the New York *Tribune*, who thinks that the general interest in the Academy might be advantageously stimulated, has generously offered to be one of twenty who shall give each one hundred dollars yearly for five years to come, to be distributed in prizes to American artists who shall be contributors to its exhibitions, and among its pupils in the school, with the proviso that a portion of the jury of award shall be laymen. We hope the other nineteen contributors will be forthcoming.

WE have already given among our illustrations a plan and section of the building to be put up on the Champ de Mars, in Paris, for the exhibition of 1878. The new plans for the buildings on the Trocadéro, by M. Davioud, are reported as finished and accepted. They do not differ greatly,

it is said, from the original designs of MM. Davioud and Bourdais, which provided a main hall with semicircular front, in shape of a theatre, on the corner of the hill, intersected by a gallery in the form of a circular arc of about twenty-five degrees, with its concavity towards the river, from the ends of which the two lateral galleries descend in parallel lines to the quay. On each side is added a light-tower of two hundred and fifty feet high, to be illuminated by electric lights; taking the place, we presume, of the single one eight hundred feet high, of which we heard threats some time ago. The space between the lateral galleries — one of which is for the horticultural exhibit, and the other for the agricultural — is to be laid out in gardens. In the centre, in front of the hall, will be a cascade; of this, the principal feature will be a fall of nearly thirty feet, in a thin sheet of water, behind which is to be a cave, or grotto, lighted only by the light that will pass through the water falling over it like a veil. A curious device is adopted in constructing the foundations, on which work has already begun. The Trocadero is undermined by old quarries or catacombs, the shell of which is probably not strong enough to bear the weight of the buildings. A sunken way is carried up from the lower level of the quay into the excavations, which will be freed from the rubbish that is in them; and proper substructures will be put in to support the roof under the building above. Meanwhile, to save time, the excavations will be begun and the first foundations laid above, as if nothing were the matter below; care being taken, however, not to add any greater weight in masonry than that of the earth that is taken out, until the "consolidations" are completed beneath. Under the lateral galleries the ground has once been broken open to the surface, with the intention of levelling the hill, and afterwards re-filled. Here it is proposed to do as is doing under the church of the *Sacré Cœur* at Montmartre; that is, to dig wells down to a firm bottom, and then, filling them up with concrete or stone-work, to throw arches across them for the foundation walls. The buildings are to be solidly built of stone and enamelled terra-cotta; and it is hoped that the city of Paris will purchase and retain them after the exhibition.

COMMODORE AMMEN, U.S.N., the officer in charge of the supervision of the surveys which the United States Government has undertaken on the Isthmus of Panama to determine the possibilities of a ship-canal, read a paper lately before the American Geographical Society, on the various surveys and the question of the canal. He took occasion to "sit upon" M. Leon Drouillet, who has lately been here in the interest of the French geographers, with a notion of securing interest in the exploration of the Isthmus, ignoring in a somewhat airy way the work that our Government has done in the matter. Our readers have not forgotten, if M. Drouillet has, the careful explorations of Commodore Selfridge, whose expeditions were liberally fitted out and supplied. On his first expedition Selfridge was supported by a staff of thirty-five engineers and scientific assistants, with a force of three hundred men and three ships of war. His second expedition and two others were undertaken by the Government with like liberality of provision. The work was carefully done, a wide range of country examined, and it is not likely that any promising route was overlooked. Commodore Ammen in his paper reviewed a dozen or so of proposed routes, and decided that the only hopeful ones were three, — the Panama route, the Nicaragua, and the Atrato-Napipi. Of the surveys of the Government he said, "None of these extended surveys conflict in any degree with each other or or with other partial surveys or reconnoissances which have been at times undertaken by private American enterprise. If any authentic instrumental surveys or proper tentative lines in the possession of M. Drouillet disprove or contradict any one of our surveys, this would be certainly of profound interest to the learned societies of the world, and afford for them foundation for further projects of exploration, however little they are considered necessary by those who have gone through these repeated practical labors and experiences in the gloomy fastnesses of the great American isthmus."

OUR forefathers would indeed have been startled if they could have seen the projects which their descendants have taken up for changing the surface of the earth they lived on. The English projects for making an inland sea in the Sahara would be likely, according to Dr. Reclam, a cremationist and the editor of *Gesundheit*, to have consequences more serious than the commercial ones that have been looked for from it, being no less than a decisive change of the climate of Southern Europe. According to him, the only influence that keeps the glaciers of the Alps from crowding down into Italy is that of the hot winds which blow northward from the Desert of Sahara. He thinks that the ice period which is shown by the geological indications of Europe was due to the fact that the Sahara was formerly covered with water, and that to restore the sea would bring it back. He cites, as an example of recent deterioration of climate, the Torres Straits, south of Australia, where a group of coral islands, increasing from twenty-six in number to one hundred and sixty, have, by checking the flow of a warm sea-current, made a material alteration of the climate within two hundred years or so. It would perhaps be a consolation to Italians if they could be persuaded that their sirocco, which they so dread and detest, was their sole defence against the rigors of an Arctic climate.

WE have received a communication from an architect who objects strenuously to the publication with the *American Architect* of the print of the Sheet-Metal Pavilion at the Centennial. The writer says, "I wish to express my surprise and regret that the *American Architect and Building News* should have admitted a view of the horror known as the Sheet-Metal Pavilion to intimate association with its illustrations of the 11th inst. . . . The very slight difference between this particular illustration and the others in this number (except of course the difference in subject) is one which very few would notice, and it seems to me is not enough to clear the paper of responsibility." And he adds that it "should not be allowed even the toleration of a journal devoted to American architecture." We are not sorry to receive this protest; for it gives us an opportunity of explaining the case, and others like it, to our readers. The advertising department belongs to the publishers, and is not under control of the editor; it is a matter of dollars and cents, like any other advertising department. We have arranged that the advertising illustrations shall be placed with the advertising pages, apart from the regular illustrations, and they are marked "heliotype advertising sheets:" here our care and authority ends. We request our readers not to ascribe to us any responsibility for them. Our opinion of the Sheet-Metal Pavilion we have expressed pretty plainly in our articles on Centennial Architecture (*American Architect* No. 24): it does not differ greatly from our correspondent's.

ARCHITECTURAL STUDENTS. — VI.

THE student of drawing will be tempted and perhaps embarrassed by a considerable variety of methods and appliances for his work. It is quite possible to waste time in trying too many experiments; yet it is undesirable to narrowly limit one's methods, as some do. Each of the principal means for drawing has its special recommendations, and each its shortcomings. If the student's object were simply to make by some means the most skilful possible drawings, it is likely that he would succeed best by keeping

solely to one way of making them; but since to the architect drawing is primarily the means of expression and discipline, he will be hampered if he does not accustom himself to work in a variety of ways. He will not get all he wants from either; from each he may get something of value in the way of discipline and knowledge of effect.

All the means of drawing may be roughly classed as brush or point, and their means of expression as line or tint. The pen is *par excellence* the instrument of line in its most uncompromising form, and hardly lends itself to tint: the brush, on the other hand, is practically unserviceable for line. Pencil, charcoal, and chalk are of the nature of compromises.

Of course the convenient servant of all work is the pencil, and the draughtsman cannot get along without mastering it. It lends itself to line or tint; it is to be found everywhere; and it needs no adjuncts, except perhaps the India-rubber, with the aid of which it allows of indefinite correction. The fact that it gives a tint is a convenience which architectural draughtsmen are a little too apt to neglect. They are often given to using it too much like a pen, neglecting its capacity for tinting, which nevertheless is one of its most characteristic virtues. Rapid and slight architectural sketches are often made very telling with no other means than clean lines, and such indication of shade as distinct lines may give. This treatment leads to vigor and decision of record; but if it becomes a settled habit it leads to dryness and hardness of manner, and even insensibility to refinement of form. The use of tints is of great importance to breadth of effect, to say nothing of the study of light and shade; and any real modelling is impossible without it. Indeed, we can give no better advice to the learner than that given to a young artist by a late Boston architect, perhaps the most consummate draughtsman in the profession on this side the water: "Practise constantly shading with your pencil." The neglect of this, which we believe to be very common, comes, no doubt, from the habit of making office drawings in firm line, which leads to the use of a hard pencil. For effect and for training a soft pencil is vastly better. A hard pencil makes a rut in the paper in which freedom of movement is almost impossible; it is likely to lead to a stiff, lifeless manner, and impairs the sensitiveness of the hand, which should be developed to the highest degree. Nothing is better for this than to practise laying light tints with a soft pencil. To habituate one's self to the use of a broad point as well as a fine one is also desirable. A chisel-point serves for both, and will keep its sharpness. An excellent material for practice is lithographic crayon, which is practically only a pencil of very soft and even grain. It gives a beautifully tender line, and leaves the hand free for the most rapid and delicate movement.

Chalk (or crayon) and charcoal are analogous to the pencil. Charcoal, beneficently introduced to us by the French draughtsmen, is the more facile and convenient. It is a soft and coarse pencil, and is invaluable for sketches and drawings, especially of detail, on a considerable scale, for which lead-pencilling would be laborious and unsuitable. No other material will give its effect so rapidly and readily in the hand of one who knows just what he wants to do; and it gives unlimited facility of correction to one who does not. It gives the darkest tones at once without shininess, and to a skilful hand the lightest and most delicate gradations. The use of the stump and the fingers is not to be despised, though a tint that is merely stumped, unless it is a very light one, looks mean and poor in texture. The charcoal point does not readily give fine lines; but its facility in shading is a desirable inducement to the study of graduated light, of modelling, and of the values and balance of tones, all of which tend to thorough drawing, and encourage a feeling for *ensemble* in the draughtsman's work.

For clear and uncompromising definition of form, so far as it can be expressed by line, the pen is the best of all. It is a merciless exposer of feebleness, and takes terrible revenge for slovenly handling. Since it does not easily lend itself to correction, and never blinks a mis-statement or an evasion, it compels a considerate handling and a clean habit of work. Its decision of statement makes every unmeaning line an impertinence: therefore it is an excellent spur to clearness of idea and terseness of expression. It is a valuable habit to sketch and design with the pen, for it makes one consider carefully what he is doing: a certain amount of this is an admirable tonic against the relaxing practice of roughing things in loosely with the pencil. We met once, sketching in Italy, a young English architect who worked on the Spartan theory of never roughing any thing in and never correcting. It was better, he said, to put things down at once as well as one could, and so leave them, remembering what their errors were. Correction tended to feebleness and indecision. The pen must have been his natural weapon, and he used his pencil like one. Luckily he was clever, and knew what he was about; but his theory seemed to us a dangerous one for fallible men with fallible memories.

Pen-drawing is a vigorous, manly, and popular kind of drawing; it is too brilliant and emphatic not to be popular. Its weakness is that it is unsuited to light and shade, and only with great labor can compass more than the simplest treatment of chiaroscuro. Breadth of tint and fineness of modelling are very laborious to it. Broad lights, therefore, concentration of shadow, and vigorous accentuation, are its most effective treatment. The fact that broad shades are unsuited to it, makes judicious accentuation the more essential. An unaccented pen-drawing, if it goes much beyond simple outline, is tame and spiritless to the last degree. Its special difficulty is that its means of representation are the most remote from the things they represent. Its element of expression, the line, hardly exists in the originals it depicts. The edges of wall-surfaces and mouldings, the outlines of shafts, and the like, are naturally and simply represented by lines; but as soon as we get away from these, we begin to depart widely from any natural representation. If we have to represent in a drawing composed of decided lines objects in which these lines are not to be seen, it must be done by some such skill and contrivance in the arrangement of lines, as shall enable them to suggest what they do not represent. Hence the demands which such work makes on the draughtsman's power of interpretation; which is quite another thing from his power of representation, and requires even a more thorough knowledge of the forms he draws. Hence too the peculiar tendency of pen-and-ink draughtsmen, to flounder helplessly as soon as they venture a step beyond the things with which habit has made them perfectly familiar. It is the necessity of selecting with keen decision just what it is important to express, and of going straight to the clearest expression of it, — a difficulty of which many of its votaries seem to have no conception, — which is the great stumbling-block in pen-drawing, and the surmounting of which gives much of the attractiveness to its success. A great temptation to it, and possibly the determining cause of its coming so much into vogue of late, is its facility of reproduction by various processes of popular illustration.

Perhaps this same cause has to answer for the neglect into which the use of the brush seems to be falling among us, — a neglect which is to be deprecated for many reasons. In the first place, the brush is the only practicable means for the study of color; and this, always an important point in the education of an architect, as of every artist, is now become of more practical importance than it has been for a long time past, because of the prominence into which color-decoration has been lately brought. The movements of popular taste from color to monotone, and from monotone to color, are deeper and of wider sweep than the waves of

fashion in architecture. It is reasonable to believe that the present tendency to the increased use of color will outlast the prevalence of the pet styles of the day; and even if for facility the draughtsman works with his brush mainly in sepia or ink, he will find that the use of it gives him quite a new point of view. It will probably more or less revolutionize his way of looking both at nature and at works of art; and by fixing his attention on masses before detail will be his safeguard against the danger of not too careful, but too exclusive, a study of line. The study of tone is next door to the study of color, and will train him to appreciation of "values." Without their appreciation it is impossible to go safely beyond the simplest monochrome in decoration; and even architectural composition will be influenced by its analogy, since the balancing of masses is very like the balancing of tints. The use of the brush by its variety of tints leads directly to an understanding of the two great elements of effect in every kind of artistic composition, — gradation and contrast, which are the soul of technical success in all the arts, and the effects of which the student should accustom himself to observe not only in architecture, but in every art that comes under his notice, be it painting, sculpture, music, or literature, and in nature herself. The brush also helps and entices one to the attainment of two much-neglected qualities in design, — breadth and repose. There is a quiet charm of great value in very flatness of tint, at least as much flatness as is ever seen upon a natural surface, especially enhanced if it be properly opposed by points of movement and animation. What we have said of the importance of shading with the pencil and charcoal applies *a fortiori* to the brush. No other means renders such tints so successfully, though charcoal is in some degree a substitute minus the color. It is almost to be feared that the beauty of the fair surface of an Italian wall will be forgotten in the restless coruscation for which our Northern architects are struggling, especially since they have taken to coloring their façades. The new means of effect brings with it its corresponding danger. He who will take into his service the beauty of color must absolutely compel with it the charm of repose. Fortunately the implement by which he acquires command of the one will help him also to master the other. It may be said, in fine, that of all the instruments at the disposal of the draughtsman, the brush is incomparably the chief in its educational value. It is with sincere concern that we see so many indications among Americans of its disuse.

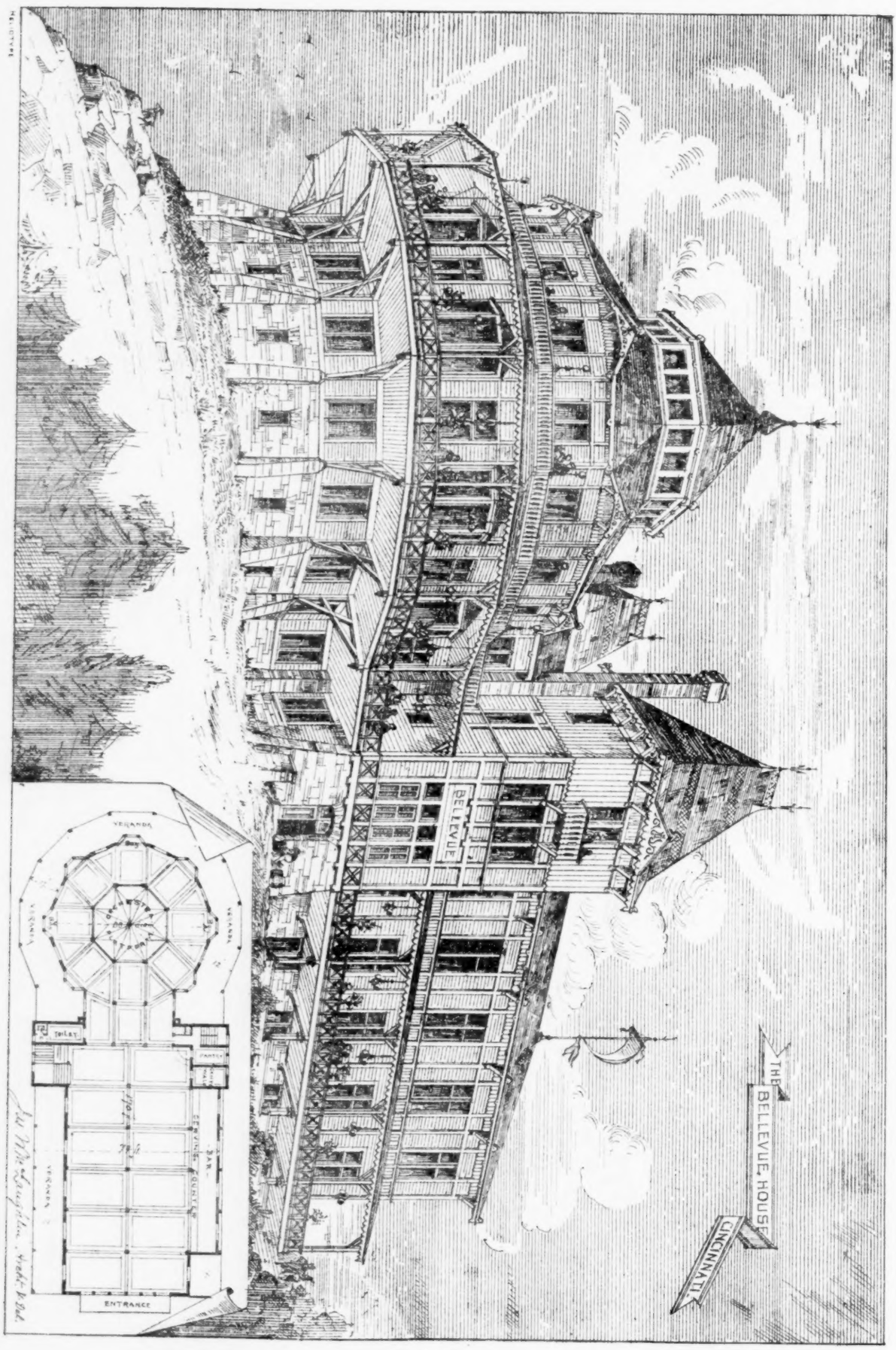
BUILDING IN NEW HAVEN.

NEW HAVEN is well nicknamed. The elms are the most conspicuous objects in it; and foliage, great and small, is the chief element in the make-up of the town, insomuch that the building is scarcely noticeable. On the whole this a considerable advantage, for the building is not good. The homey look of the place is very pleasant, and is much enhanced by the care and taste with which the dooryards are embellished. The front doors break out into a wonderful profusion of hanging-baskets, which divert attention from the "fancy" carpenter who has had his wicked will with the houses themselves. It is strange how much better taste the gardening shows than the building; or it would be strange if we did not remember that every town of the size of New Haven exhibits the same phenomenon, and that plants cannot be treated with a scroll-saw and a moulding-machine. The business quarter is in no way remarkable, except as being rather below the average. There are a few business buildings in which Prof. Huxley's honest bricklayer has been supplanted by Prof. Huxley's *bête noir*. The result is rather in favor of the professor and the bricklayer. The city building, which adjoins the county building and conforms to it architecturally, forms with it a Gothic building of considerable pretension and success. The architects were not the same, but the main difference in design is chronological. The building which is some twelve years the younger of the two shows a gratifying advance upon its predecessor, — all the more gratifying, since neither shows any particular individuality to interfere with the course of architectural evolution. If Mr. Fergusson's queer theory of architecture as an art which, in good times, can be practised about equally well by anybody, were a sound one, this difference would denote that we were on the road to a perfect architectural expression again: making a considerable discount upon that theory, it still indicates a real progress. As for houses, the only one we saw which appeared to have been designed by an architect was a brick house on Hillhouse Avenue, with a *porte-cochère* at the side, with much spirit and perhaps too much variety in the design. But there are several houses in New Haven by Mr. Cady, which must be much better than this, and which I unluckily missed seeing, as my cicerone assumed that the "swell" street contained the architecture, and sent me up Hillhouse Avenue, in which the house I have mentioned is the single and rather doubtful oasis.

The architecture of New Haven is strictly collegiate, and is almost confined to the college green. Even the public buildings which have been mentioned face it, though on the side opposite the college buildings. The front row of these is a series of brick barracks, as ugly as is possible for an honest building to be; and there is a great gulf of two generations at least between them and the newer buildings which alone interest the visitor. The only attempt that has been made to bridge it is in the modernizing of an old church, by inserting pointed windows with wooden mullions, and by a brand-new, or brand-modern, Gothic tower. The tower itself is not devoid of merit, and, when it is seen alone over the tops of the trees, is a pleasant object; but it would have been better to leave the old rubble meeting-house to be the monument of its own period, and to tell its own story, and to put up the tower, if public opinion really demanded a tower, as a detached campanile, instead of setting it astride of the old, low-pitched roof. Perhaps the library may be regarded as another connecting link. It is a Tudor building in brown stone; a central building with wings and connecting curtain-walls, and dates back apparently — I do not know the date — to the first period of the Gothic revival, when men considered that Gothic architecture consisted in putting pointed arches and Gothic mouldings on the front of a Renaissance building, and when the Houses of Parliament were the model of Gothic composition; days to which I remember your London correspondent looked back sorrowfully as the golden time of the new Gothic. With these exceptions the architecture of Yale looks less than twenty years old, and most of it less than ten.

Mr. Wight's art-building looks the oldest-fashioned of any of it. It must have been done after the Academy of Design in New York, and when the architect had concluded, from meditating the effect of that work, that his fancy needed a vigorous curbing. Certainly no two buildings, and both art-galleries, could be less alike in spirit than these two; and they do not identify themselves in any way as the work of the same architect. One is inclined to wish that he had not so sternly restricted himself to penitential pulse and water; for, if the impression made by the New York building is something too violent, the New Haven building is in danger of being passed by without making any impression at all; which also cannot be satisfactory to the artistic mind. Evidently this building has not the crudities which somewhat mar the other; and as evidently both are the work of a sincere student and a well-endowed artist. But both, for different reasons, are distinctly inferior to the Mercantile Library in Brooklyn, which one unacquainted with what Mr. Wight has done since in Chicago will regard as his masterpiece.

Away at the other end of the long quadrangle which the college buildings surround, and forming one corner of it, stand three buildings all, I believe, by Mr. Russell Sturgis, but of curiously unequal interest. These are the Farnham Dormitory, the Durfee Dormitory, and the chapel. The first is not only the best of these, but it must be the best of Mr. Sturgis's works, at least it avoids the faults of most of them. In plan it is only a box, for the projections at the corners are so slight as hardly to count, and mainly serve to account for the gables over them. The walls are of coursed rubble, in brown stone, and so vigorous in expression as to make us wonder and lament anew over the enormous amount of money yearly wasted in smoothing all the character out of honest sandstone. The openings are disposed so as to give variety enough to the wall without impairing its mass. For practical, that is, glaziers' purposes, they are all lintel-headed; for architectural purposes, arched. The tympana are filled with deep-red bricks. The porches are not happily treated, and the staircase lights are made too much of for their function; but the angle-turrets, slender and pierced as they are, are very different from the ugly stone drums which these features usually become. The building, as a building,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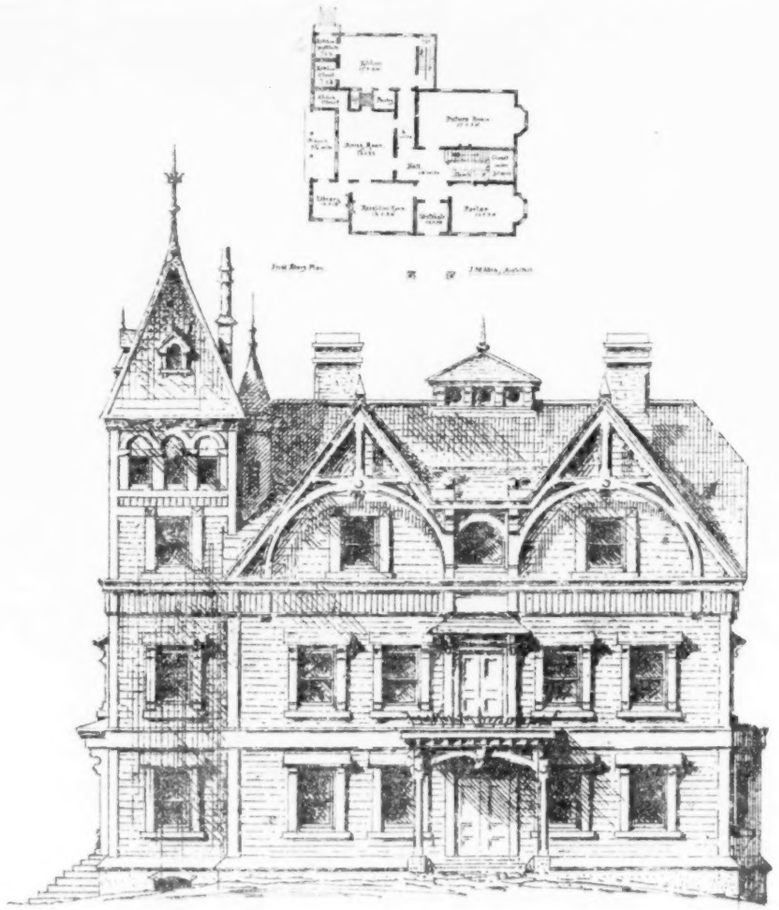
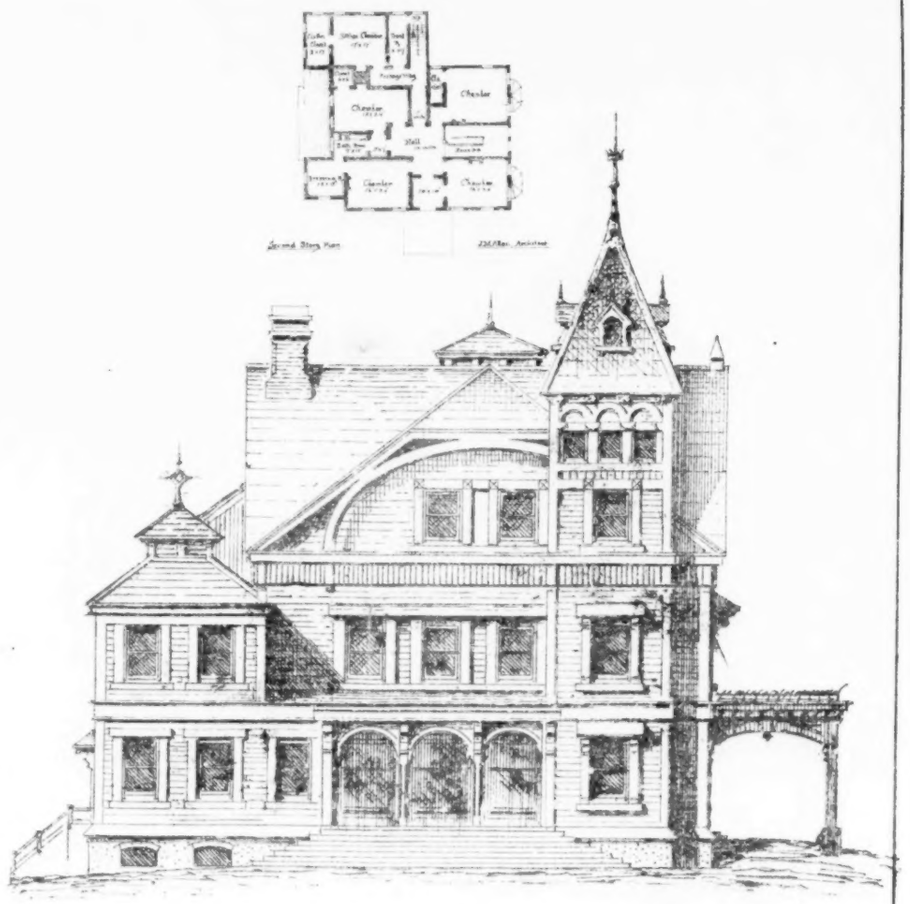


Bush Street.

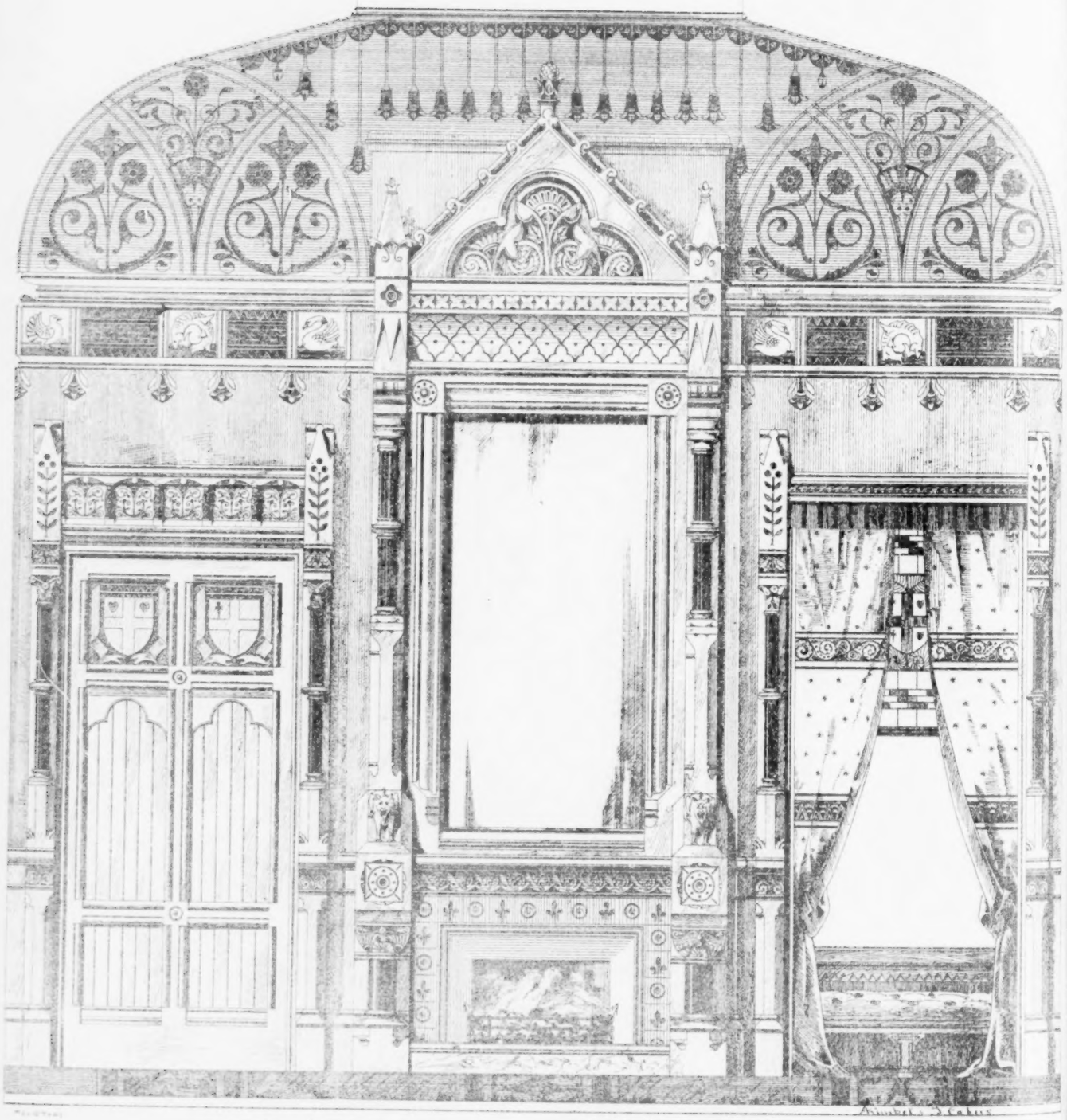
Front Elevation



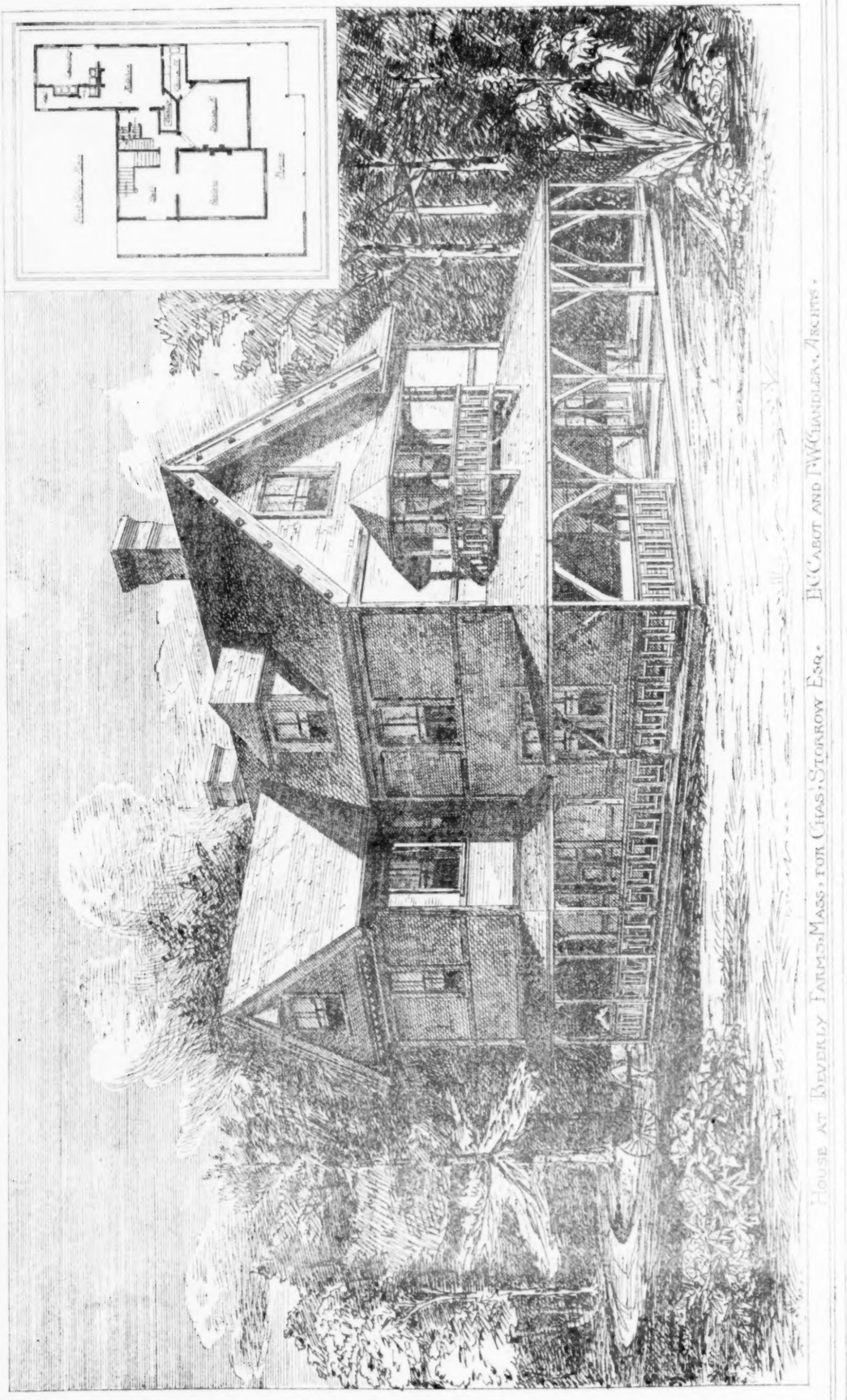
Orchard Street.

End Elevation

J.M.Allen, Architect.



Designed and executed by A. Kimbel & J. Cabus.
New York.



HOUSE AT BEVERLY FARMS, MASS., FOR CHAS. STORROW ESQ. — E.C. CABOT AND P.W. CHANDLER, ARCHTS.

is strong and quiet, and as a college dormitory has a distinctly cloistral character, and tells its story unmistakably. The other dormitory in brick and blue-stone is very far inferior. The grouping of the openings is not successful; the use of moulded bricks does not help the shallow look of the larger openings; and the smaller are covered with stone lintels, which are cut on the under side into the likeness of unmoulded trefoiled arches, and are ugly and inexpressive. The gables of the large dormers are hung with a fringe of wooden tracery which looks like a reminiscence of carpenters' Gothic, and those of the narrow dormers are cut into sprawling trefoils. The polished and coupled granite shafts which carry the entrances, with their marble capitals and pierced tympana, make the front look spotty; and the merit of the building is pretty much the practical merit of adaptation to its uses, and the moral merit of being, except in the trefoiled lintels, a frank exhibition and emphasis of its structure. The chapel is not more successful; and the only recollection one retains of it is that its openings are round arched, and that it is divided vertically by a heavy string-course which would have been a corbel-table had it not been connected into an arcade by the insertion under each corbel of a shaft inadequate, to the eye, to carry it.

Mr. Hunt has two buildings in New Haven, also very unequal. One is as remarkable for having no special relation to its purpose in its architecture, and the other for being precisely expressive of its purpose. The first is the Divinity School, a brick building, with segment-headed openings, and truncated at the corner into a face one window wide, over which rises a steep hood. It shows its authorship; and there is here and there a Gothic detail, by way of concession to the *genius loci*. But it looks like a French apartment house, such as those which have been built in New York from Mr. Hunt's designs, rather more than like what it is. There is a chapel in the rear of it, of which, until one gets a glimpse of the long windows in the side, it really is not clear whether it is a chapel or a highly ornate stable. Still a building is a building, as well as a particular kind of building, and has merits or defects as such. This building shows the vigor which is seldom absent from Mr. Hunt's work, and, not so much as some of his later designs, the unrest which is apt to impair it. The construction is emphatically expressed; and, if there is no keen sense of beauty shown in it, there is also no triviality or nonsense. One fault it has which much of Mr. Hunt's recent work shows, and which appears in an exaggerated form in the New York Tribune Building. The dormer and hood which crown the truncated angle of the building are right and effective, and come in well with the larger faces, from a point of view directly opposite them. From any oblique point of view they are intrusive and disagreeable. This fault must arise from studying a design in elevations only, and is a strange one for an architect of Mr. Hunt's eminence and experience to commit. The other building of Mr. Hunt's is the lodge of the Scroll and Key Society, if it is lawful to name that mysterious and august body. It is a cube of twenty-five feet or less, without an opening except the door, and with no visible roof. It is built in bands of stone in two colors. The doorway is rich and graceful; the whole building is designed skilfully, and with special skill for its purpose. Nobody could fail to tell at a glance what it was. It not only expresses the resolute seclusion appropriate to secret societies in general, but has a certain comic air of "advertising mystery and inviting speculation," which could only denote a college secret society. How it is ventilated, is as puzzling a problem, from what is seen of it, as how the Greek temples were lighted. No doubt that is well looked out for; and, even if it were not, what undergraduate would not gladly be stifled in an iron safe to enjoy the consciousness of being so manifestly shrouded in mystery as he is in this building? I heard of another lodge in buff brick and tile, a solid cube like this, done by Mr. Cady, which I was not fortunate enough to happen upon.

Mr. Cady is the architect of the Sheffield Scientific School and of the Peabody Museum; the former the cheapest and simplest, the latter to be the costliest and largest, of all the Yale buildings. The Sheffield School is a flat-roofed box of red brick with a decoration of buff brick, in which the architect's limits and conditions prevented him from aiming at any effect save what can be attained by mere power and grace of design. The result, considering these conditions, is very remarkable. The walls are so divided by a succession of vigorous piers, and range of graceful openings, the color is applied with so delicate a feeling, that the spectator completely forgets the difficulty of the problem in the rhythmic charm of the result. The sides and the back of the building are treated as carefully and as successfully as the front, nay, even more so; for a little apsidal extension at the back is one of the best of its features, while the porch in front is commonplace by comparison with the rest, and looks a little incongruous.

One wing or about a third of the Peabody Museum is built. In proportion to the perfection of the whole of a work of art, is the imperfection of its parts taken singly; but what is built of the museum is a fine fragment. Almost the only allowance that evidently needs to be made is with the openings of the upper story, which are not only square-headed over ranges of arches, but are wider apart than the arches under them. It is only by referring to the design for the whole that one sees this drawback will become an advantage, as a foil to the great arcade of the central mass. The openings of the first story at the end are set too close to give that story quite its due weight of wall; but a glance at the inside shows that that arrangement was an unfortunate necessity of the scheme, the cases of specimens occupying the wall-space and requiring abundant light between each pair. The composition is very effective. The single great dormer in each face fitly crowns it, and the great hipped roofs are full of vigor. The detail, especially the cornice, is full of character; the openings bold and so skilfully treated as to take away, as far as may be, the flatness which is the stumbling-block of brickwork; and the use of color, inside and out, delicate as might be expected, and subordinate, as might also be expected, to the more essential qualities of design. The completed work of which this is a fragment will be the chief ornament of Yale, and a worthy monument of one of the most artistic and sincere, and perhaps the most refined, of American architects. S.

THE ILLUSTRATIONS.

THE BELLEVUE HOUSE, CINCINNATI. MR. JAS. W. MCLAUGHLIN, ARCHITECT (*Cor. Walnut and Fifth Streets, Cincinnati, O.*).

THIS is a place of public resort, situated on a precipitous hill 350 feet above the level of Cincinnati, and about 500 feet above the river. As the name implies, from its verandas and balconies a very extensive prospect can be obtained of a great portion of the city and of Kentucky, and the valley of the Ohio in the distance. The main floor is an entirely open space with an elevated platform for orchestral performances, and galleries surrounding it on second floor. There is also on the latter floor a ballroom 50 x 80 feet. In the basement are the billiard-rooms, bowling-alleys, the kitchens, etc. Beneath these are the wine and beer cellars. The structure has been built by the Cincinnati and Clifton Inclined Plane Railroad Company, whose passenger elevator furnishes the means of access from the city below. As an instance of the success of the enterprise, it may be mentioned that as many as 12,000 visitors have been carried up the incline in one day.

HOUSE ON BUSH STREET, NEW BEDFORD, MASS. MR. J. M. ALLEN, ARCHITECT (*Marion, Mass.*).

DECORATIVE INTERIOR. MESSRS. KIMBEL AND CABUS (*7 and 9 East Twentieth Street, New York*).

HOUSE AT BEVERLY FARMS, MASS. MESSRS. CABOT AND CHANDLER, ARCHITECTS (*14 Devonshire Street, Boston*).

FLUDDER'S SYSTEM FOR THE VENTILATION OF SOIL-PIPES.

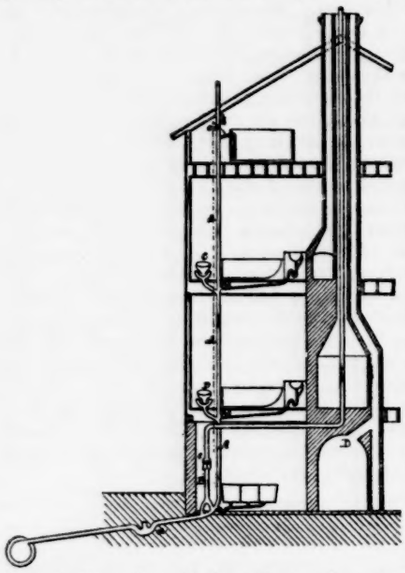
THE accompanying illustration shows a new system for producing a circulation of air through the soil-pipe of a dwelling-house, which seems to overcome many of the objections to the method now generally adopted. Its purpose is to secure a constant *downward* current of fresh air through the pipe, thus providing a sufficient amount of oxygen to carry the decomposition of the foul matters remaining within the pipe and of the foul sliming of the inner surface to such a point of completeness as shall prevent the formation of poisonous gases.

These gases are usually produced by the decomposition of organic matter in the presence of excessive damp, and in the absence of sufficient oxygen for complete decay. By this copious introduction of fresh air, not only is the decomposition carried more nearly to completion, but its gaseous products are at once largely diluted, and rendered thereby innoxious, and to a great degree inoffensive.

Another effect secured is the creation of an inward draught, whereby the tendency of the gaseous contents of the soil-pipe to escape through water-traps, etc., is reduced, while any imperfection in the jointing would be likely to become an inlet rather than

an outlet, — fresh air entering the pipe at these points, instead of foul air escaping.

Referring to the diagram, "A" indicates the soil-pipe descending from without the roof through the house and its cellar, and passing on to the sewer. At the point "*a*," ouside the house, it is trapped in such a way as to prevent the supply of air being drawn from the sewer. At its lowest point in the cellar, below the junction of the waste-pipe from the laundry trays, another pipe "B" of the same size with the soil-pipe, or preferably somewhat larger, is communicated with the soil-pipe by two legs; the purpose of this double connection being to prevent a downward draught on the pipe "B," by the flow of water past its mouth. The pipe "B" rises to the ceiling of the cellar, and crosses to the line of the kitchen chimney, — the kitchen chimney, because this is the only one in the house which can be depended upon to be kept constantly warm enough to create an upward current. It then turns upward, and passes through the kitchen flue to a point well above the top of the chimney, preferably somewhat farther above than the diagram shows.



So far as described, this arrangement must lead to a constant descent of air through the pipe "A" to its point of junction with the pipe "B," and an ascent through this latter to the point of escape above the chimney. For this purpose alone the arrangement is probably the best that has been devised; but its further features, concerning the attachment of the water-closets, are no less worthy of commendation. These closets "C" and "D" are connected with the soil-pipe by untrapped outlets, although the bowls of the closets are separated from this outlet by an ordinary water-seal tilting-pan. It is assumed, and probably correctly assumed, that the movement of air down the soil-pipe would create sufficient friction to keep up a constant movement in the air contained in the short outlet-pipes, and in the receiving-chambers below the closets; enough so to prevent any injurious stagnation. By an ingenious device, the lever which tilts the sealing-pan when the closet is used is attached to another lever connected by bell-wire with the damper in the upper part of the soil-pipe. In its

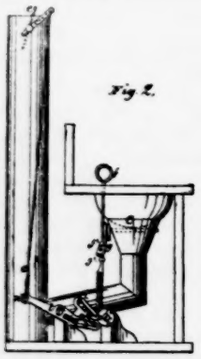


Fig 2.

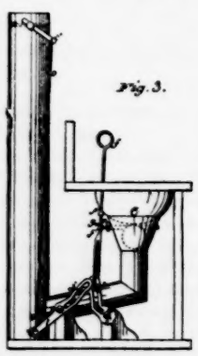


Fig. 3.

normal condition this damper stands open. When the handle of the water-closet is raised, its first effect is to close the damper, and thus prevent a supply of air from the summit of the soil-pipe; its further movement tilts the sealing-pan, and discharges the contents of the closet into the soil-pipe. As soon as the sealing-pan is open, the demand for air to feed the draught of the ventilating pipe in in the chimney-flue can be supplied only through the closet; and a downward draught is established, which is sufficient to carry with it all odors, and entirely to change the air of the receiver and branch-pipe below. There being no trap in the branch-pipe, the contents of the bowl are flushed immediately through into the soil-pipe, instead of remaining to decompose, as they do in the bend-trap now almost universally used. The handle being released and allowed to fall back, the first effect is the closing of the water-seal; and this is immediately followed by the opening of the damper, which re-establishes the current from above the roof. In the diagram the damper in the soil-pipe is shown at "*b–c*," and its connection with the closets by the line "*d–d*." It is immaterial how many closets are used. Each one has its independent connecting-wire leading to the damper; and when any one of these is drawn taut, closing the damper, the wires connected with the other closets simply fall slack.

Should it not be expedient or advisable to carry the upward air-pipe through the kitchen chimney, it may pass independently through a high point of the roof, and be furnished with Banner's ventilating cowl, or some other suitable device for maintaining a constant current. At "*e*" there is shown a chamber or enlargement of the pipe, containing a wind-wheel, by which (through a glass at one side of the chamber) one may see the effect and constancy of the current. For experimental purposes this may be very well; but for practical use it is of no value, and it must have a certain, even though very slight, retarding effect upon the current, — due not only to the power required to move the wheel, but to the disturbance of flow resulting from irregularity. "D" indicates a method for ventilating the cellar, which is quite independent of the main device.

AN ARCHITECT'S RESPONSIBILITY.

TO THE EDITOR OF THE AMERICAN ARCHITECT AND BUILDING NEWS.

Dear Sir, — In your issue of Oct. 28, your Cambridgeport correspondent raises a question of the very first importance, and one which, being raised, demands for the benefit of all interested a fair and fearless consideration. I know nothing of the circumstances which may have prompted his inquiry; but one thing is clear. Whoever, calling himself an architect, leaves "theories of construction" involving the safety of his work, to be determined by the builder, is unworthy of the title he assumes.

I am aware that a fraction of the public still regard an architect as a draughtsman, — an artist, perhaps, but a sort of necessary evil, whose duty it is to make upon paper the picture of a building to be executed under the direction of the "practical" superintendent, with no thought of the responsibility involved in the planning, until perhaps an accident occurs, and a scapegoat must be found; when owner, builder, and practical superintendent unite in dragging the unfortunate "artist" to the surface to serve in that capacity.

But leaving what may be regarded as exceptional, and speaking only of regular practice, it is time that the responsibility of the profession was placed beyond question. We all know the difficulty, often the impossibility, of getting a satisfactory job of joiner's work from some contractor whom circumstances may have forced upon us. Let such a builder be accepted by the owner, possibly upon terms calling for the employment of low-priced help as a measure of economy, then good-by to all hope of that last care and skill in the execution of the work, which only secures a lasting satisfaction to owner and architect alike. Under such circumstances, no amount of superintendence, "practical" or otherwise, will obtain it. But in the body, — the walls, frame, and general substance of the building, — nothing can excuse serious failure. The architect is bound to see to it that his drawings fully illustrate all the relations of the various parts of the structure, and clearly indicate his "theories of construction." He has no moral right, though his work may lie outside the limits of the Building Act, to use coefficients of safety so low that any probable amount of scamping will endanger the structure. Further, he will serve his own best interest, and that of his client, by insisting upon the control of the execution of the work. But should circumstances induce him to yield this point, then, first being sure of the accuracy of his drawings and written instructions, he should let the works in progress severely alone; confining his interest to the giving of such explanation as may be asked for in his office, by mechanics who come for that purpose.

If, however, the superintendence be under his control, although for reasons before indicated he may be unable to obtain the fine joint in brick and stone work which he may desire; though the surface of the walls may not be perfectly true, or the framing as

close as he could wish, — still it is in his power to secure absolute safety to the building and its future contents, more or less precious as the case may be; and for this he should, without hesitation upon his own part, be held to the last degree responsible.

And here, Mr. Editor, occurs a thought. What do people realize of the actual responsibility which rests upon their architect, or the extent to which their lives are in his hand? Talk of the responsibility of a physician: that is indeed great. If your friend falls ill, he calls upon his good doctor to lead him back to health; and if possible this is done: if not, one man dies. The physician was not responsible for the illness: he did his best to counteract it, but failed, and he is not blamed. But suppose your friend, being in good health, takes tickets for himself, his wife and children, to the opening of some new room, hall, or theatre, which you or I have built, and every detail of the construction of which we have controlled. He goes with hundreds, perhaps thousands, under the excitement of the pleasure of an opening night. Does he, or do any of that audience, realize for an instant what they have done, — that they have placed their lives in our hands, and that we have accepted the trust? *We* know that if that error in framing had not been discovered and remedied in time; if that bolt had been allowed to remain where the workman left it when he was called away, and the end of that truss had been covered out of sight, unsecured, as was about to be done when we made our round of inspection ; had these things happened, as they would but for our personal oversight, or had we miscalculated in this or that or the other direction, — *we* know that the lives of your friend and his wife, and his children, with their scores of friends present on this opening night, are not worth the price of their tickets. But do they know this? Probably not; and it may be a merciful dispensation of Providence which blinds them to the fact. But ignorance or parsimony upon the part of those who are responsible for the erection of such buildings, leading them to trifle with their safety, to employ incompetent builders, or, if consulting an architect of ability, to restrict him to the furnishing of drawings, or in any way limit him within the proper scope of his office, is criminal.

Many a man who has learned the trade of a bricklayer (to the extent that trades are learned in these latter days) will turn an arch, and build a wall above it, ignorant whether it will stand or fall when the centre is struck; while his brother will frame together, possibly in an unexceptional manner as regards workmanship, a combination of timbers, innocent of any positive knowledge whether his structure when finished will bear a locomotive, or fall of its own weight.

As I write, your number for Nov. 4 comes to hand, containing a record of the fall of a building in Manchester, N.H., caused by overloading a girder during progress of erection. Building-accidents of one kind or another, reported by your own journal and the daily press, have been of late of very frequent occurrence. Probably in most of these cases, possibly in all, no architect was at all concerned. But while such things are happening, and while questions like that of your correspondent are asked, any discussion of the question of professional responsibility, which may help to its better appreciation and clearer understanding, will be of service to the public, our clients, and ourselves.

H. W. HARTWELL.

SHAM MEDIÆVAL FURNITURE.

ARE we becoming imitators and not originators, a people dependent on others for our designs, and not the suggesters of the thoughts displayed in our wares; willing to take what is brought to us, satisfied with our surroundings, so long as they are in keeping with the prevailing mode, be it Rococo, or Louis Quatorze, or the hard outlines and heavy forms that date from Queen Anne?

We have our art-schools and our art-manufactures, and are oppressed with examples of old furniture, from the mediæval to the free classic, from the Pompeian to the Saxon; but, wanting some guiding principle to govern us in our choice, we vibrate between the extremes, instead of striking out and originating for ourselves, and are content to revive old and once-forgotten styles, making of them a novelty. Pugin thought there was nothing worthy of the name of art that was not mediæval; and Eastlake in turn holds up as the beau-ideal of art, furniture made by men whose only tools consisted of an adze, a saw, and a smoother that would answer to what we call a spoke-shave. There can be no middle ground with men of such extreme views. We must accept their dogmas as a whole, and not in part, follow unquestioning their lead, or be unto them as heathens — beyond the pale, at least, of the learned in household art.

A man may have the taste of a virtuoso, and be respected for it: he may be a determined archæologist, sparing no pains and never counting the cost of time and trouble to unravel some historic riddle. He may admire old furniture because it is old, and value it for what it has been and as a connecting link with the past. But it does not follow, that because the tables and stools now brought into notice met the simple wants of our forefathers, it is obligatory on us to adopt them as our own. A traveller in Italy, as he stands in the workshops and sees at what disadvantage the mechanics ply their calling, wonders that they are so behind the age in their appliances; but when he expostulates with them for taking a roundabout way to do that which he is accustomed to see turned off easily, he understands it all, for he is met with the reply, "Our fathers wrought thus; and ways and tools that were good enough for them are good enough for us." It is idle to attempt to refute an argument like this, and perhaps it is as idle to think of changing the views of one wedded to this question of old furniture.

This is an age of novelties: every man is striving to get or to make some new thing ; and it is a novelty to revive the forgotten forms of tables, settees, and chairs that are characterized more by their weight and unwieldiness than by their grace and fitness, — the furniture of an age that did its best, but did that best clumsily. To win our confidence and insure our respect, the advocates of this new old furniture play upon its mode of construction, its ornamentation cut out of the solid wood, its free use of tenons and dowels, and the entire absence of glue and veneers. Now, if there was ever a transparent humbug, it is this; for it needs but half an eye on the part of those who inspect such furniture, to see that the tenons which are supposed to come through, and be fastened by a key, are really glued on, on the outside of the uprights, — the grain of the wood in many cases running in the opposite direction from that of which it is supposed to be a part. And so of the hinges, — imposing, long strap hinges of polished brass, — the strap, which is its great characteristic, screwed on so as to touch the ordinary brass hinge on which the door is really hung, and of which it is supposed to be a part. These long strap hinges are very beautiful; I have made them and used them, but never in this way. They were made as were their prototypes, solid and good, and were not used as shams, but as the genuine thing. And other characteristics of mediæval furniture I have reproduced where they could properly be brought in ; but the work was solid and true throughout, every piece being exactly what it was represented to be.

And here I would say, that in these remarks I am not taking exception to old furniture, or to the taste that would lead us to adopt it for our households; but I do set my back firmly against much of the modern imitation. There are wonderfully fine specimens of eighteenth-century furniture to be found in some of our older settled towns, — charmingly wrought bureaus, gracefully designed mirror-frames, well-shaped chairs, claw-foot tables; specimens, in many instances, imported by the more wealthy of the inhabitants, or made from designs sent over, and wrought out here from logs of old St. Domingo mahogany, rich in color in its day, but which now through the lapse of years has turned almost as black as ebony. Many of these have been bought up by collectors, who have also gathered specimens of Dutch marquetry and carved work, and have hunted all over Europe for styles characteristic of a past age, it hardly matters what, if it can be made to do duty in a modern saloon. Collections of this kind must necessarily be made up of broken sets, odds and ends, as it were, — a Louis Quatorze cabinet, a Louis Quinze buffet, a Venetian mirror, a chest from Nuremberg, a Dutch clock, Pompeian mantel ornaments, Persian rugs, Turkish divans, and chairs in pairs, gathered in out-of-the-way places from Geneva to Madrid, or wherever antiques of this kind may be found; the whole, when brought together in a room large enough to show them to advantage and without overcrowding, often producing a pleasing effect. Moreover we take an interest in them from the fact of their being genuine; but when we labor to reproduce them, we get but the form of the past without its life or its spirit.

THE LATEST PERIODICALS.

VERY marked indeed is the contrast between what one nowadays finds in the English journals and what one found there during the last of the summer months. Architects and editors seem to be settling to the winter's work in a way to profit the reader. The Architectural Association, which is composed of the younger members of the profession, has had its opening meeting some weeks

before the Institute, which like a senior counsel cedes to the junior society the duty of striking the keynote of the winter's discussions. This was boldly struck by the president, Mr. Boyes, in his opening address, which contained a frank confession of the regret with which he watched the power that fashion had over the architectural as well as the lay mind. A correspondent of the *Architect* expresses regret that the papers on art read recently at the Social Science Convention did not deal with the matter more logically, and depended so much on sarcasm for their effect. The continuation of the paper on mural decoration describes the different methods in practice, and their respective values. Signor Castellani writes further of some of the difficulties he experienced in imitating antique jewelry. Dr. Schliemann writes at considerable length of his excavations at Mycenæ; but as there is no chart nor map, the topographical description is unintelligible. The discussion of street architecture still occupies the attention of the *Building News*, both in the abstract and also in the particular instance of the Strand and Fleet Street. Among other things it suggests, that as Temple Bar is to be destroyed, it should be re-erected as the entrance to the Temple Gardens. A little book entitled *Domestic Building Construction* is well spoken of as being simple and straightforward: it contains but the complete drawings and specifications of a single ordinary house, and pretends to nothing higher; but this did not save it from a most caustic notice in the *Architect* some weeks since. The Science Class is as usual instructive. The most noticeable of the illustrations are the Fink Truss of the Pennsylvania Railroad Depot at Philadelphia, and the new Town Hall at Hastings. The *Encyclopédie d'Architecture* contains a valuable illustrated article on the late hygienic exhibition at Brussels. The most striking of the illustrations is the terminal façade of a large railway station. M. Boitte's restoration of the Temple of the Wingless Victory, with the explanatory text, occupies the most important place in the *Moniteur des Architectes*. Notes on the Exposition of 1878, the continuation of the article on the employment of cements, Mr. Deacon's apparatus for detecting waste of water in public water-works, and sundry shorter articles with and without illustrations, make up the current number of *La Semaine des Architectes*. The *British Architect* arrives too late to discover more than that it is concerning itself to secure for Manchester a portion of the $1,600,000 which the surplus profit of the Exhibition of 1851 now amounts to. A glance, too, at the illustrations shows that the bow-pencil, like the chisel, should be intrusted only to skilled hands. In the *Builder* will be found the "Liverpool Address on Health;" a criticism on the various papers on art read at the late Social Science Congress; a notice of the exhibition of fine arts as applied to industry, now holding in Paris; Mr. W. Cave Thomas's paper on mural decoration; the opening address of the president of the Liverpool Architectural Society, on the "Position of Architecture;" a very interesting article on engineering works in progress; and an article on a new form of drain-trap. An illustration of the monument to Henri Regnault is given, one part of which, the nearly life-size ideal figure of La Jeunesse, by M. Chapu, which even in its unfinished condition carried off the highest honors of the *Salon* of 1875, is in its suggestiveness, the most exquisitely beautiful piece of sculpture we have ever seen.

NOTES AND CLIPPINGS.

BURNING OF A CENTENNIAL BUILDING. — About 6 P.M. Nov. 17, a fire occurred in the frame building known as the Grangers' Encampment, at Elm Station, on the line of the Pennsylvania Central Railroad, about three miles from the Centennial grounds. The building was totally destroyed. It was 750 feet long, with six or eight wings, and had accommodations for about 500 persons. During the Centennial it has accommodated thousands, mostly members of the Order of Grangers and Farmers. The cost of the erection of the building was about $80,000.

TOO INSIGNIFICANT TO BE MENTIONED. — The Philadelphia *Press* gives a full account of the new building of the Young Men's Christian Association, which was opened Nov. 14, but fails to mention the name of the architect of the building so highly praised. If the president in his opening address could say that he believed that "every dollar had been economically expended," he might have gracefully added, if only in parenthesis, that this was in some measure due to the architect, who was in this case, we believe, Mr. Addison Hutton, of Philadelphia.

EMPTY HOUSES. — If the statement in the new Massachusetts census, that there are 11,705 unoccupied dwelling-houses in the State, is correct, Massachusetts architects may think it time to follow Horace Greeley's advice to young men.

THEATRE BURNED. — The Circus Theatre, Madrid, was burned on the 13th inst. during the performance of Jules Verne's "Voyage to the Moon." Two lives only were lost.

THE PHILADELPHIA POST-OFFICE. Of the three hundred and fifty thousand dollars appropriated for the continuation of the new Post-Office building at Philadelphia, two hundred thousand dollars have been consumed. Owing to restrictions placed upon the department in the disbursement of this fund, the work has been confined to the cutting of stone for immediate use on the building, and the employment of a small force on the ground to place it in position as it arrives. The reports received in the office of the Supervising Architect show that the supply of worked stone on hand is rapidly diminishing; and, as five men can set as much as ten times that number can prepare, it looks now as if work will soon have to be discontinued to await material. Under every contingency it is evident that the completion of the structure will be greatly delayed. The appropriation for the next fiscal year, if any be made, will be required to get the stone wrought; and it is estimated that at least one year will be required to get a sufficient supply on hand to warrant the resumption of work.

TOWN HALL. — Sargent Hall, the gift to the town of Merrimac, Mass., by William P. Sargent, Esq., the well known carriage-builder, of Boston, was dedicated Nov. 13. Mr. Sargent not only gave the building and land to the town, free from embarrassing conditions, but he also added a policy of insurance covering the building several years.

B'NAI B'RITH STATUE. — The New York *Commercial Advertiser* says that the steamship *Alexandria* brought to that port recently the statue of Religious Liberty, which is to be presented to the General Government by the Jewish Order of the B'nai B'rith (Son of the Covenant), to commemorate the entire freedom which the Jewish race has ever enjoyed under American institutions. The statue stands eleven feet high, which weighs fifteen tons, and cost $20,000. The work consists of three figures, of which the chief one is a female representing America, clothed in simple and classic costume, and bearing upon her breast a shield with the stars and stripes in relief. Her left hand rests upon the fasces, the scroll of the Constitution, and a wreath of laurel. Her right arm is extended in a forbidding gesture, waving off all interference. On the right, and partly sheltered by America, stands a nude boy, symbolizing Faith, with his head and one hand lifted appealingly to heaven, while the other hand sustains a vessel in which is shown the undying flame of religion. On the other side, and at the feet of the central figure, is an eagle with talons buried deep in the neck of a monstrous serpent, Intolerance, whose body is coiled partly around the bundle of rods, and, extending to the rear of the group, finally protrudes from beneath the flowing garment of America.

THE GERMAN PAVILION. — The Imperial Commissioners have presented the German Pavilion to the city of Philadelphia.

THEFT OF A PRECIOUS STONE. — The new marble pulpit of Durham Cathedral, designed by Sir G. G. Scott, is incrusted with precious stones. One of these, an amethyst, has been stolen, the thief using a knife to force the setting.

FLOODING OF THE THAMES TUNNEL. — The Thames tunnel was flooded to such an extent recently as to necessitate the entire suspension of railroad traffic. The inundation is attributed to a defect in some docks recently opened, the foundations of which are said to be higher than the level of the tunnel. The permanent pumping apparatus proved inadequate.

THE DRESDEN COURT THEATRE. — The new Court Theatre in Dresden, of which the first stone was laid in 1871, is now fast approaching completion. It will be, the German papers assert, the finest edifice of the kind in all Germany, as well for its size as for the magnificence of its decorations. It is arranged to seat two thousand spectators.

THE HIGHEST MONUMENT IN THE WORLD. — The new cast-iron spire of the cathedral at Rouen has just been completed. The *Semaine Religieuse* of that diocese publishes the following particulars relative to the comparative heights of the principal monuments of the globe, as contrasted with this new work: The dome of St. Peter's at Rome raises its cross to 452 feet above the ground. Strasburg, the highest cathedral in all France, reaches, with its celebrated clock-tower, 465 feet; Amiens, 439 feet; Chartres, 399 feet; Notre Dame at Paris has only 222 feet. The Paris Pantheon, considered one of the boldest edifices, does not exceed 308 feet, the cross included. On another side, the highest pyramid, that of Cheops, measures 478 feet according to some travellers, 465 feet according to others; and this latter calculation is the one generally adopted. The pyramid of Chephrem has 436 feet, that of Mycorenus 177 feet. Among more modern edifices, the dome of St. Paul's, London, has 360 feet; that of Milan, 375 feet; the Hôtel de Ville of Brussels, 352 feet; the Square Tower of Asinelli, Italy, 351 feet; the dome of the Invalides, Paris, 344 feet; St. Sophia, at Constantinople, only rises to 190 feet; the Leaning Tower of Pisa, to 187 feet; the Arc de Triomphe, Paris, to 144 feet; the Pantheon of Agrippa, to 141 feet; the Observatory of Paris, to 88 feet. The dome of the Capitol at Washington, including its statue, reaches 307 feet in height; Trinity Church steeple, New York, to 284 feet. From these figures, which are given in round numbers, it will be seen that the spire of Rouen, which has a height of 492 feet, is the most elevated monument in the world. The old one, commenced in 1544, on the plans of Robert Becquet, destroyed by the fire of Sept. 15, 1822, and which was justly considered one of the boldest and most perfect works in existence, had a height of 433 feet; it was therefore 59 feet less than the present spire.

MR. J. T. DEXTER, author of the valuable articles on "Ceramics at Philadelphia," has been recently elected a corresponding member of the Historical Society of Pennsylvania.